

**Advanced Higher Maths**  
**SQA 2024 Paper 2**  
**Question 9**



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An arithmetic sequence has first term  $-3$  and common difference  $d$ .

(a) State an expression for the third term. 1

The eighth term is five times the third term.

(b) Find the value of  $d$ . 1

(c) Determine algebraically the least number of terms required so that the sum of the associated series is greater than 500. 3

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Answers:

(a)  $-3 + 2d$

(b) 4

(c) 18